

Investigation of Carbon Monoxide Poisonings after Two Major Hurricanes—Alabama and Texas, 2005

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Background: Gasoline-powered portable generators are increasingly implicated as sources of carbon monoxide (CO) poisoning during power outages. Despite public health warnings following Hurricanes Katrina and Rita, surveillance in Alabama and Texas reported numerous CO poisonings. We investigated these poisonings to determine the extent of the problem and develop prevention strategies.

Methods: We defined a case as illness in a person with a carboxyhemoglobin (COHb) level of $>2\%$ for nonsmokers and $>9\%$ for smokers (confirmed case) or a medical diagnosis of CO poisoning (probable or fatal case). We reviewed records from 30 area hospitals for demographic and clinical information. One adult from each poisoned household was asked to participate in a home interview and generator inspection.

Results: We identified 88 CO poisoning cases (including 10 fatalities) that occurred in 27 separate events. Portable generators were implicated in 22 of the 23 nonfatal events and three of the four fatal events. Households from 18 (67%) of the 27 events were interviewed. Of the households interviewed, 16 (89%) households operated their generators outside (median distance = 4 ft.; range, 1–21 ft.); 13 (72%) households heard CO prevention messages before the event. Nine (50%) households were poisoned in homes with operating window air conditioners. Six households owned a CO detector prior to the event, and only one of those detectors alarmed during the exposure.

Conclusions: CO poisoning occurred in many households despite efforts to heed prevention messages. Recommendations for reducing future CO poisonings should emphasize locating generators as far away from the home and window air conditioners as possible and installing and testing CO detectors regularly. Generator design modifications might reduce the incidence of CO poisonings more effectively.

Disclaimer: *The findings and conclusions in this presentation have not been formally disseminated by the Agency for Toxic Substances and Disease Registry and should not be construed to represent any agency determination or policy.*

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